VOSKOBOYNIKOV, G.I.

USSR/Chemical Technology. Chemical Products and Their Application -- Silicates. Glass. Ceramics. Binders, I-9

Abst Journal: Referat Zhur - Khimiya, No 2, 1957, 5207

Author: Voskoboynikov, G. I.

Institution: None

Title: Rational Selection of Thermal Glass Treatment Procedure

Original Publication: Steklo i keramika, 1956, No 6, 13-15

Abstract: In glass manufacture use is made of three thermal glass treatment procedures -- annealing, hardening and semi-hardening. Annealed, hardened and semi-hardened glass articles are characterized by different mechanical and thermal properties. In comparison with annealed, the hardened sheet glass 6 mm thick has greater resistance to static load (by 3-4 times), greater strength on impact (by 5-7 times), higher thermal resistance (by 2-3 times). Modern technology makes it possible to obtain hardened articles of different degree of hardening, which differ in required mechanical strength and thermal

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USSR/Chemical Technology. Chemical Products and Their Application -- Silicates. Glass. Ceramics. Binders, I-9

Abst Journal: Referat Zhur - Khimiya, No 2, 1957, 5207

Abstract: stability, and also by a specific nature of breakdown. However, by force of habit annealing remains the predominant method of thermal treatment of glass. It is recommended to revise the production technology of a number of articles, replacing annealing by hardening or semi-hardening.

Card 2/2

AUTHOR: Voskoboynikov, G. I. SOV/72-58-11-8/15

TITLE: Economical Production Organization of Heat and Sound Insulating Materials From Staple Glass Fiber (Ratsional'naya organizatsiya proizvodstva teplo-zvukoizolyatsionnykh materialov iz shtapel'nogo steklyannogo volokna)

PERIODICAL: Steklo i keramika, 1958, Nr 11, pp 25-28 (USSR)

ABSTRACT: For this purpose it is necessary to have products from staple fiber with a diameter of 8 - 12 μ, mainly in the form of cotton, plates,, and mats. The need for such products is very great, especially in the building of houses, ships, and refrigeration plants. The choice of economical production methods is for this reason of great importance. The author uses the vertical blast method, which yields better results and which is being used in other countries. He rejects the opinions of I. S. Shatokhin (Ref 1), V. A. Ryabov, N. A. Sheludyakov and T. M. Barbarina (Ref 2), who used the horizontal method. He refers to the experiments of Ya. A. Shkol'nikov in Nauchno-issledovatel'skiy institut steklyannogo volokna (Scientific Research Institute of Glass Fiber) (Ref 3), as well as those of P. A. Koryagin in

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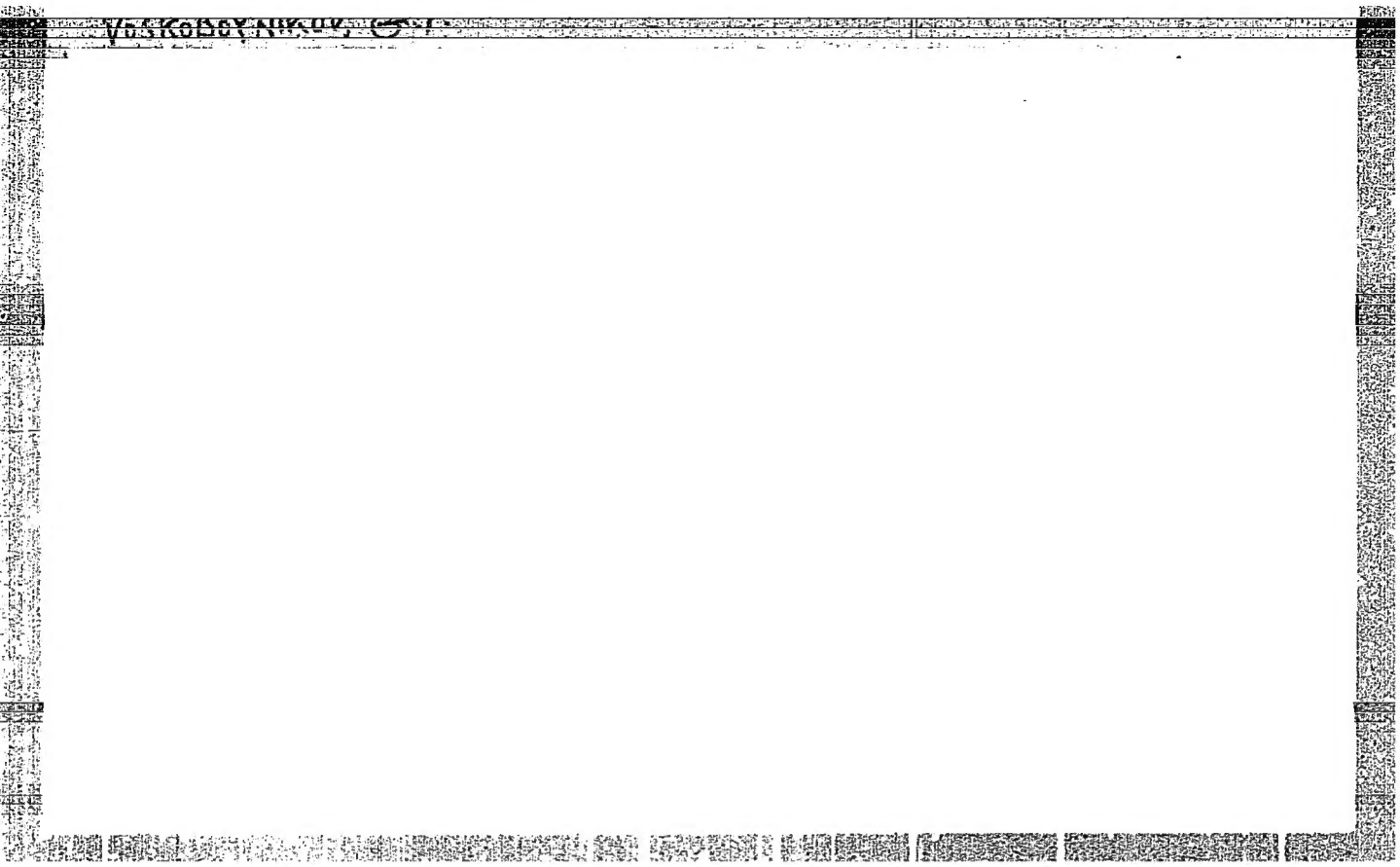
Economical Production Organization of Heat and Sound Insulating Materials From Staple Glass Fiber

Ivotskiy stekol'nyy zavod (Ivot Glass Works) (Ref 4), which show the advantages of the vertical blast method. The glass works Lilichenskiy, imeni Oktyabr'skoy revolyutsii, Konstantinovskiy, "Proletariy", Leninskiy and others suggest that smaller factories be built for this production. The author of this article nevertheless holds that larger factories should be built, since they are operating more economically and at lower prices. An economical unit of measure for this material must be introduced. The author considers the weight unit introduced in the Ivot Factory to be highly undesirable, since it promotes the manufacture of products of increased specific weight, which is not rational economically and highly undesirable. There are 4 references, which are Soviet.

VOSKOBOYNIKOV, G.I.; REZNIKOV, M.I.

Improving the manufacture of enameled glass tiles for facing. Stek. i ker. 19 no.3:15-18 Mr '62. (MIRA 15:3)
(Enamel and enameling) (Tiles)



VOSKOBOYNIKOV, G. I.

Annealing hollow glass objects. Stek. i ker. 14 no.4:9-13 Ap '57. (MLRA 10:5)

1. Proyektno-konstruktorskoye byuro Instituta stekla.
(Glass manufacture)

VOSKOBOYNIKOV, G. M.
USSR/Geophysics - Bibliography

Card 1/1

Author : Voskoboynikov, G. M.

Title : Critical review: Problem concerning the practical applicability of B. A. Andreyev's method for determining the depth at which sources of potential fields lie.

Periodical : Izv. AN SSSR, Ser. geofiz. 1, 97-99, Jan/Feb 1954

Abstract : Recommends Andreyev's method of determining depths of exciting bodies and his method of calculating their potential and derivatives (in the region of the known convergence of his series).

Institution : Ural Affiliate, Academy of Sciences, USSR; and Mining Geological Institute

Submitted : December 15, 1952

FD-2777

USSR/Geophysics - Magnetic prospecting

Card 1/2 Pub 45 - 11/13

Author : Voskoboynikov, G. M.

Title : Criticism. Problem of determining the direction of magnetization of disturbing bodies according to the data of magnetic surveying and prospecting

Periodical : Izv. AN SSSR, Ser. geofiz., Sep-Oct 1955, 483-485

Abstract : In issue No 5 of this journal for 1953 was an article by D. S. Mikov, "determining the direction of magnetization of disturbing bodies from the results of magnetic survey." A serious mathematical error permitted by Mikov leads him to an incorrect conclusion concerning the possibility of applying the data by him from an integral formula to calculating the angle of inclination of the magnetization vector to cylindrical bodies of arbitrary cross section. The present writer expounds the essentials of the problem of avoiding use of these incorrect formulas in practice. He derives the formula for determining the angle of inclination of the direction of magnetization by means of a relation between the positive and negative parts of the area which is bounded by curve Z or H for a circular cylinder (line of dipoles);

FD-2777

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Abstract : namely, he derives for an elementary cylinder the parameters: $(+Z) = 2m/h$, $(-Z) = -m(1+\sin g)/h$, where Z and x are considered as functions of angle Θ formed at center of cross section of cylinder vertically and in direction to moving point of profile. Hence the formula for the angle of magnetization direction is $(-Z)/(+Z)$.

VOSKOBOYNIKOV, G. M.; DEYEV, L.L.

Density logging of coal-prospecting test holes. Razved.i okh. nedr 22 no.10:38-46 O '56. (MLRA 9:12)

1. Ural'skiy filial Gorno-geologicheskogo instituta Akademii nauk SSSR.
(Prospecting) (Coal geology)

VOSKOBOYNIKOV, G.M.

PONOMAREV, V.N.

3(6,10); 9(6) PHASE I BOOK EXPLOITATION SOV/1924

Akademiya nauk SSSR. Ural'skiy filial. Gorno-geologicheskiy institut.

Geofizicheskiy sbornik, no. 2. (Collected Papers on Geophysics, Nr. 2.) Sverdlovsk, 1957. 207 p. Issued also as Its Trudy, vyp. 30. Errata slip inserted. 2,400 copies printed.

Resp. Ed.: Yu.P. Bulashevich, Doctor of Physical and Mathematical Sciences; Ed.: I.N. Denis; Tech. Ed.: L.A. Izmodenova.

PURPOSE: This collection of articles is intended for field geophysicists and exploration party leaders.

COVERAGE: These articles discuss many new techniques and some theoretical considerations involved in gravitational, magnetic, seismic, electrical and gamma radiation exploration methods. In 4 articles V.N. Ponomarev discusses various aspects of magnetometry; N.I. Khalevin - the study of elastic wave propagation; and G.M. Voskoboynikov - gamma radiation. Extensive bibliographies accompany each articles.

Card 1/5

GAMMA-RADIATION

VOSKOBOYNIKOV, G.M.

BULASHEVICH, Yu.P.; VOSKOBOINIKOV, G.M.

Gamma-Ray logging in Ural coal mines and the possibility of careless bering of a portion of exploratory boreholes. Izv. AN SSSR. Ser.geofiz. no.1:109-112 Ja '57. (MIRA 10:3)

1. Ural'skiy filial AN SSSR. Gorno-geologicheskiy institut.
(Prospecting--Geophysical methods) (Coal geology)

49-3-7/16

AUTHOR: Voskoboynikov, G.M.

TITLE: Theoretical basis of selective gamma-gamma-ray logging (multiply scattered γ-ray logging). (Teoreticheskiye osnovy selektivnogo gamma-gamma-karottazha).

PERIODICAL: "Izvestiya Akademii Nauk, Seriya Geofizicheskaya" (Bulletin of the Ac.Sc., Geophysics Series), 1957, No.3, pp.351-362 (U.S.S.R.)

ABSTRACT: On the basis of the approximate theory of gamma-gamma-ray logging, presented by Dyad'kin, I.G. (1), it was concluded that the recorded intensity of the scattered γ-radiation of a point source in a uniform medium depends solely on the density of the medium. It was thereby assumed that the γ-quanta have energies for which the effects of forming pairs and of photo-absorption in rocks is negligibly small compared to the effect of Compton scattering and it was also assumed that the counter is completely protected from the effects of the soft scattered rays. If these assumptions are fulfilled, experimental results are in good agreement with these theoretical conclusions. However, if the design of the equipment is such as to record soft rays for which the process of photo-absorption plays an important role, the recorded intensity will also depend on the composition of the

Card 1/4

Theoretical basis of selective gamma-gamma-ray logging (multiply scattered γ-ray logging). (Cont.)

rocks and in some cases it may be an indicator of the changes in composition. To investigate this relation qualitatively the author uses the results of an accurate solution of the kinetic equation of propagation of γ-rays in a uniform medium with uniformly distributed sources. Results obtained by the author and by Karr and Lamkin (3) are summarised in the graph, Fig.1 in which the energy of the scattered quanta are plotted on the abscissa and the spectral intensity of the scattered radiation is plotted on the ordinate. It can be seen that in the hard range the intensity of scattering is practically independent of the composition of the medium, whilst in the range of small quanta energies the intensity of radiation increases sharply to a maximum for a quantum characteristic for each individual medium and then drops rapidly to zero on further decrease of the quantum energy. With increasing atomic number of the medium, the maximum intensity decreases and the position of the maximum is shifted towards larger energy values. This feature is attributed to the effect of two contradictory processes, namely, reduction of the energy of the quanta during multiple Compton scattering and photo-absorption. Thus, it is shown on the basis of

Theoretical basis of selective gamma-gamma-ray logging (multiply scattered γ-ray logging). (Cont.)

theoretical calculations that the recorded intensity during logging by multiply scattered γ-rays (γ-γ-ray logging) can be made strongly dependent on small contents of admixtures of elements with high atomic numbers and, by using soft radiation sources, an appropriate instrument shell and gas filled counters with cathodes made of heavy elements, it is possible to obtain a high sensitivity to the presence of small admixtures of elements of high atomic numbers which do not affect appreciably the density of the rocks and would thus not be detected by logging methods based purely on density values. The author refers to logging based on this principle as "selective" in contrast to the known "density" method of logging by multiply scattered γ-rays. This method can be useful in prospecting for heavy metals, e.g. bismuth, lead, mercury, tungsten, antimony, tin and in specially favourable conditions, also molybdenum, zirconium, niobium, both in deposits and in placers. The theoretical conclusions are supported by experimental results which are plotted in the graphs, Fig.2 and entered in Tables 1 and 2.

49-3-7/16

Theoretical basis of selective gamma-gamma-ray logging (multiply scattered γ-ray logging). (Cont.)

There are 2 tables, 2 figures and 12 references, 8 of which are Slavic.

SUBMITTED: June 18, 1956.

ASSOCIATION: Ural Branch of the Ac.Sc., U.S.S.R. (Ural'skiy Filial Akademiya Nauk SSSR).
Mining-Geological Institute. (Gorno-Geologicheskiy Institut).

AVAILABLE: Library of Congress

Card 4/4

VOSKOBOYNIKOV, G.M.

Integral equations and approximation formulas for calculating gamma ray intensity in a homogenous radiation medium. Trudy Gor.-geol. inst. no.30:152-161 '57. (MIRA 11:7)
(Gamma rays) (Radioactivity--Measurement)

SOV/169-59-3-2326

Translation from: Referativnyy zhurnal, Geofizika, 1959, Nr 3, p 39 (USSR)

AUTHOR: Voskobovnikov, G.M.

TITLE: The γ-Radiation Intensity in a Uniform Emitting Medium

PERIODICAL: Tr. Gorno-geol. in-ta. Ural'skiy fil. AS USSR, 1957, Nr 30, pp 162 - 172

ABSTRACT: The author explains results of calculating the emission intensity to be recorded in uniform media of different composition, containing equiponderant Ra or U, equiponderant Th and K. The calculations were carried out for cylindrical discharge counters, immersed in an infinite medium. The discharge counters have copper and lead cathodes and cases, which practically do not absorb the γ-rays but detain the β-radiation. Approximate formulas, which were previously proved (RZhGfiz., 1958, Nr 12, 8784), were used for the calculation. The following regularities were found: 1) The recorded radiation intensity in a dispersing medium rises with an increase in the atomic number of the cathode material. 2) The radiation intensity decreases

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The γ -Radiation Intensity in a Uniform Emitting Medium

rapidly with an increase in the equivalent atomic number $\bar{Z}$ of the medium, especially in media with a small $\bar{Z}$ number enriched with heavy additions. 3) The specific radiation intensity (corresponding to a given unit content) of a heavy radioactive element, distributed in the medium, decreases with an increase in the content of that element. This reduction must be considered if the uranium and thorium content of the medium amounts to several tenths of one percent or more. 4) Observing γ -rays with different discharge counters does not provide a reliable determination of the nature of the emitter. 5) A variation of the recorded radiation intensity, accompanied by a variation of $\bar{Z}$ of the medium mainly occurs because of the intensity variation of the soft, dispersed rays of less than 0.25 Mev energy, connected with an intensity decrease of the hard rays. For this reason, the relation between the soft and the hard radiation components may serve as an indicator for the degree of enrichment of the medium (rocks) with heavy metals. Bibl. 13 titles.

B.B. Migunov

Card 2/2

AUTHOR: Voskoboynikov, G.M. 89-4-4-5/28

TITLE: Some Results Obtained by the Experimental Investigation of the Possibilities of the Application in Practice of Selective γ-Ray Logging (Nekotoryye rezul'taty eksperimental'noy proverki vozmozhnosti prakticheskogo primeneniya selektivnogo karotazha)

PERIODICAL: Atomnaya Energiya, 1958, Vol. 4, Nr 4, pp. 359-364 (USSR)

ABSTRACT: Experimentally it was possible to confirm the experimental conclusions of Ref.1 as well as the possibilities and limits of selective γ-ray logging. Experiments carried out in the laboratory and in practice confirmed the possibility by means of this method to determine zones of rock with a metal content of lead, tungsten, and mercury of from 0.2-0.3% and more, and with a content of antimony and molybdenum of from 0.6-1% and more. The method is based upon the fact that γ-radiation is scattered differently on mineral-containing metal than on mineral that contains no metal. In particular, measurement of soft γ-scattering-radiation offers the possibility of selective separation. Particular attention must, however, be paid in order that any

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Some Results Obtained by the Experimental Investigation of the Possibilities of the Application in Practice of Selective γ-Ray Logging

89-4-4-5/28

possible self-radiation of the mineral be eliminated by particularly careful screening-off. There are 3 figures, and 2 references, 1 of which is Soviet.

SUBMITTED: November 27, 1957

1. Rock--Analysis 2. Metals--Determination 3. Gamma rays --Scattering 4. Gamma rays--Measurement

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21(9)
AUTHORS: Voskoboynikov, G. M.; Kartashov, N. P. SOV/89-6-1-5/33

TITLE: On the Problem of the Spectrometric Investigation of the γ-Radiation of Natural Radiators (K voprosu o spektrometricheskikh issledovaniyakh γ-izlucheniya yestestvennykh izluchateley)

PERIODICAL: Atomnaya energiya, 1959, Vol 6, Nr 1, pp 42 - 48 (USSR)

ABSTRACT: γ-spectrographic methods have recently been employed in an increasing degree for the search of minerals containing uranium and thorium. In order to adapt the parameters for a γ-scintillation spectroscope to actual geophysical conditions as far as possible, it is advisable theoretically to take all such effects into account as may occur both in connection with the measuring method employed and in the measuring device.
In the present paper the γ-spectra of uranium and thorium which are in equilibrium in mining rock are calculated. Results are graphically described. Furthermore, the secondary β-radiation spectra produced in 1 g of a NaJ(Tl)-crystal per minute under the influence of the γ-radiation of uranium and thorium are graphically represented.

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For other types of crystals, such as organic scintillators, the ordinates of the sum curves must be multiplied by the coefficient 1.25. If a CsJ(Tl)-crystal is used, the coefficient of magnification is 1.28. A KJ(Tl)-crystal corresponds to the NaJ(Tl)-crystal.
I. M. Nazarov showed that it is possible to measure the uranium and thorium content of a mineral by measuring the γ-intensities at 2 different discriminator adjustments. The problem lead to the solution of two equations with 2 unknown quantities. The two equation coefficients are calculated for different discriminator adjustments. In this way it is possible to pre-determine the optimum operation conditions of a γ-spectrometer, so that the determination of the uranium and thorium content can be carried out with an accuracy of $< 20\%$. Other measuring methods (Refs 12 and 13) are not so accurate. There are 3 figures, 1 table, and 13 references, 10 of which are Soviet.

On the Problem of the Spectrometric Investigation of the γ-Radiation of Natural Radiators

SOV/89-6-1-5/33

SUBMITTED: May 10, 1958

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S/049/60/000/02/009/022
E131/E459

AUTHOR: Voskoboynikov, G.M.

TITLE: Interpretation of the Data of Gamma Prospecting in Stratified Media

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geofizicheskaya, 1960, Nr 2, pp 263-270 (USSR)

ABSTRACT: A method is described where gamma-fields in radiating or absorbing stratified media are calculated as given by Koran and Spenser (Ref 4 and 5). The parameters of the process of gamma-prospecting are characterized by the "linear deposits" along the profiles or wells. These linear deposits can be determined from Eq (1), where $\varepsilon(z)$ - volumetric density of mineral distribution along the z-axis which coincides with the profile. The linear deposits of the radio-active elements can be found from Eq (2), where

$$S = \int_{-\infty}^{+\infty} I(z)dz$$

is the surface described by the z-axis and the intensity curve of the gamma-field $I(z)$; ρ_o - density of the intersected rocks;

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Interpretation of the Data of Gamma Prospecting in Stratified Media

K - coefficient characterizing the radiation. The above equations are applied to a stratified medium, the physical properties of which only vary along the z-axis. In this case, the densities are defined by Eq (3) and the gamma-field is assumed to contain a unit surface with the density of the radiating media equal to one. If $j_0(z)$ is the spatial distribution of one of the components of the unit field, then all the remaining fields, characterized by the components $j(z)$ (Eq (4) and (5)), form a surface with density of radiating matter σ placed in a medium of $\rho(z)$ density. In order to simplify the calculations, a variable ζ (Eq 6) is introduced instead of the coordinate z. Then, the functions $\zeta = \varphi_1(z)$ and $q^{*} = q_1(\psi_1(\zeta))$ are defined as Eq (8) and (9) and the gamma field can be calculated from Eq (10) to (14), where H is the thickness of an equivalent layer in a uniform medium, $F(\tilde{z})$ is the field at a distance $\tilde{z}$ from the radiating matter. An example of calculation of the intensity of gamma-radiation is shown in Fig 1, where the right-hand diagram shows the

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S/049/60/000/02/009/022
E131/E459

Interpretation of the Data of Gamma Prospecting in Stratified Media

curves $F(\tilde{z})$ and $F(\tilde{z} - H)$ as the dashed lines and the function $\tilde{J}(H,\tilde{z})$ has a continuous line. The left-hand diagram shows the curves $\tilde{J}(H,\tilde{z})$ calculated from Eq (14) (continucus line); the dashed line represents the lower part of the curve $\tilde{J}(H,z)$. The general formula for this type of calculation can be shown as Eq (15). This formula can be applied where densities vary only slightly and the bore has a small diameter. There are 1 figure and 5 references, 4 of which are Soviet and 1 English.

ASSOCIATION: Ural'skiy filial AN SSSR Institut geofiziki
(Ural Branch of the Academy of Sciences USSR, Institute of Geophysics)

SUBMITTED: April 8, 1959

Card 3/3

VOSKOBOYNIKOV, G.M.

Accuracy and limits of the applicability of diffusion approximation in solving problems pertaining to the propagation of γ-rays. Zhur.tekh.fiz. 30 no.1:90-95 Ja '60. (MIRA 13:8)

1. Ural'skiy filial AN SSSR, Institut geofiziki.
(Gamma rays)

VOSKOBOYNIKOV, G.M.

Logging tool with self-moving recording meter. Trudy Inst.geofiz. UFAN SSSR no.3:207-211 '65. (MIRA 18:8)

VOSKOBOYNIKOV, G.M.

Integral transformations and the location of the singularities of the logarithmic potential. Izv. AN SSSR. Fiz. zem. no.1:76-89 '65.
(MIRA 18:5)

1. Institut geofiziki Ural'skogo filiala AN SSSR.

VOSKOBOYNIKOV, [illegible]; TSIRUL'SKIY, A.V.; STROTIN, N.I.

Some theoretical gravimetric problems in papers by V.N. Malovichko and collaborators. Izv. AN SSSR. Ser. geofiz. no.11:1702-1707 N '64. (MIRA 17:12)

1. Institut geofiziki Ural'skogo filiala AN SSSR.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001861020013-9"

VOSKOBOYNIKOV, G.M.

Carleman function and its use in solving some geophysical problems. Izv. AN SSSR. Ser. geofiz. no.11:1579-1590 N '62. (MIRA 15:11)

1. Ural'skiy filial AN SSSR, Institut geofiziki.
(Geophysical research)
(Functions)

DYAKOVN, I. G., BULASHEVICH, Yu. P. and YOSHCHENKO, G. V.

"Some problems in the theory of gamma-gamma logging."

report to be submitted for the Conference on Nuclear Geophysics, Krakow, Poland, 24-30 Sept 1962.

VOSKOBOYNIKOV, G.M.

PHASE I BOOK EXPLOITATION SOV/5592

Vsesoyuznoye soveshchaniye po vnedreniyu radioaktivnykh izotopov i yadernykh izlucheniy v narodnom khozyaystve SSSR. Riga, 1960.

Radioaktivnyye izotopy i yadernyye izlucheniya v narodnom khozyaystve SSSR; trudy Vsesoyuznogo soveshchaniya 12 - 16 aprelya 1960 g. g. Riga, v 4 tomakh. t. 4: Poiski, razvedka i razrabotka poleznykh iskopayemykh (Radioactive Isotopes and Nuclear Radiation in the National Economy of the USSR; Transactions on the Symposium Held in Riga, April 12 - 16, 1960, in 4 volumes. v. 4: Prospecting, Surveying, and Mining of Mineral Deposits) Moscow, Gostoptekhizdat, 1961. 284 p. 3,640 copies printed.

Sponsoring Agency: Gosudarstvennyy nauchno-tekhnicheskiy komitet Soveta Ministrov SSSR. Gosudarstvennyy komitet Soveta Ministrov SSSR po ispol'zovaniyu atomnoy energii

Eds. (Title page): N. A. Petrov, L. I. Petrenko, and P. S. Savitskiy; ed. of this volume: M. A. Speranskiy; Scientific ed.: M. A. Speranskiy; Executive Eds.: N. N. Kuz'mina and A. G. Ionel';

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Radioactive Isotopes and Nuclear (Cont.) SOV/5592

Tech. Ed.: A. S. Polosina.

PURPOSE : The book is intended for engineers and technicians dealing with the problems involved in the application of radioactive isotopes and nuclear radiation.

COVERAGE: This collection of 39 articles is Vol. 4 of the Transactions of the All-Union Conference of the Introduction of Radioactive Isotopes and Nuclear Reactions in the National Economy of the USSR. The Conference was called by the Gosudarstvennyy nauchno-tekhnicheskiy komitet Sovet Ministrov SSSR (State Scientific-Technical Committee of the Council of Ministers of the USSR), Academy of Sciences USSR, Gosplan SSSR (State Planning Committee of the Council of Ministers of the USSR), Gosudarstvennyy komitet Soveta Ministrov SSSR po avtomatizatsii i mashinostroyeniyu (State Committee of the Council of Ministers of the USSR for Automation and Machine Building), and the Council of Ministers of the Latvian SSR. The reports summarized in this publication deal with the advantages, prospects, and

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development of radioactive methods used in prospecting, surveying, and mining of ores. Individual reports present the results of the latest scientific research on the development and improvement of the theory, methodology, and technology of radiometric investigations. Application of radioactive methods in the field of engineering geology, hydrology, and the control of ore enrichment processes is analyzed. No personalities are mentioned. There are no references.

TABLE OF CONTENTS:

VOSKOBOYNIKOV, G.M.

Some problems in the theory of radiometric prospecting (in connection with E.M. Filippov's articles published in "Prikladnaia geofizika," nos. 17, 19, 24). Izv. AN SSSR. Ser. geofiz. no.1:114-119 Ja '61. (MIRA 14:1)

1. Akademiya nauk SSSR, Ural'skiy filial, Institut geofiziki.
(Radioactive prospecting) (Gamma rays)

VOSKOBOYNIKOV, G.M.; UTKIN, V.I.; BURDIN, Yu.B.

Spectral methods of determining the nature of anomalies in selective logging. Izv. AN SSSR. Ser. geofiz. no.8:1141-1149 Ag '61. (MIRA 14:7)

1. Akademiya nauk SSSR, Ural'skiy filial, Institut geofiziki.
(Radioactive prospecting)

SELYANSKIY, V. M., SMIRNOVA, V. YA., VOSKOBOINIKOV, G. N.

Sheep - Diseases

Pulmonary diseases of lambs and their therapy. Veterinariya 30, No. 3, 1953.

Monthly List of Russian Accessions, Library of Congress
June 1953. UNCL.

VOSKOBOYNIKOV, G.N.

SELYANSKIY, V.M. Candidate of Biological Sciences;
SMIRNOVA, V.Ya. Candidate of Agricultural Sciences;
VOSKOBOYNIKOV, G.N. Veterinarian, City of Tutayev, Yaroslav Oblast, All-Union Animal Husbandry Station. "Pulmonary diseases of lambs and the method of their treatment."
SO: Veterinariya;Vol. 30;No.3; March 1953 uncl
TABCON

VOSKOBOYNIKOV, G.N.; TRETILOV, A.I.

Foreign exhibitions in Moscow. Veterinariia 41 no.1:95-97 Ja '65. (MIRA 18:2)

1. Soyuznyy trest po snabzheniyu sel'skogo khozyaystva veterinarno-zootekhnicheskim oborudovaniyem, instrumentariyem i medikamentami.

VOSKOBOYNIKOV, G.N., veterinarnyy vrach

Apparatus for veterinary laboratories. Veterinariia 42 no.11:106-109 N '65. (MIRA 19:1)

SELYANSKIY, V.M., kandidat biologicheskikh nauk; SMIRNOVA, V.Ya., kandidat sel'skokhozyaystvennykh nauk; VOSKOBOYNIKOV, G.M., veterinarnyy vrach.

Pulmonary diseases of lambs and their therapy. Veterinariia 30 no.3:41-43 Mr '53. (MLRA 6:3)

1. Vsesoyuznyaa stantsiya zhivotnovodstva, g. Tutayev, Yaroslavskoy oblasti.

1. SMIRNOV, L. F.; VOSKOBOYNIKOV, G. N.

2. USSR (600)

4. Sheep - Diseases

7. Prevention and therapy of hoof rot in sheep. Sots. zhiv. 15, No. 4, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

MANOYLOV, S.Ye.; KANTIN, A.V.; VOSKOBOYNIKOV, G.V.; GERASIMYAK, V.G.; NIKONOVA, O.N.; SHIN' VEY-CHAON

Electrophoretic analysis of blood serum proteins in malignant tumors before and following treatment. Vop. onk. 11 no.2:74-77 '65. (MIRA 18:7)

1. Iz TSentral'nogo nauchno-issledovatel'skogo rentgeno-radiologicheskogo instituta Ministerstva zdravookhraneniya SSSR (direktor: Ye.I. Vorob'yev).

VOSKOBOYNIKOV, G.V.

Separation of liver proteins by agar electrophoresis. Biokhimiia 24 no.3:404-407 My-Je '59. (MIRA 12:9)

1. Central Research Roentgen-Radiological Institute, Ministry of Health of the U.S.S.R., Leningrad.
(LIVER, metab.
proteins, agar electrophoresis (Rus))
(PROTEINS, metab.
liver, agar electrophoresis (Rus))

SHMELEVA, N.I.; VOSKOBOYNIKOV, G.V.

Late sequelae from the action of radiations on hemopoiesis. Biul. eksp. biol. i med. 52 no.10:43-46 O '61. (MIRA 15:1)

1. Iz otdela otdalennoy luchevoy patologii (zav. - doktor biologicheskikh nauk S.N. Aleksandrov) i otdela biokhimii (zav. - prof. S.Ye.Manoylov) TSentral'nogo nauchno-issledovatel'skogo instituta meditsinskoy radiologii (dir. - zasluzhennyy deyatel' nauki prof. M.P.Pobedinskiy) Ministerstva zdravookhraneniya SSSR, Leningrad. Predstavlena deystvitel'nym chlenom AMN SSSR N.A. Krayevskim.
(RADIATION--PHYSIOLOGICAL EFFECT)
(HEMAPOIETIC SYSTEM--RADIOGRAPHY)

VOSKOBOYNIKOV, G.V.

Iron metabolism in experimental radiation sickness. Biokhimiia 27 no.1:65-71 Ja-F '62. (MIRA 15:5)

1. Department of Biochemistry, Central Research Institute of Medical Radiology, Leningrad.
(IRON IN THE BODY) (RADIATION SICKNESS)

VOSKOBOYNIKOV, G.V.

Iron metabolism disorders in the livers of irradiated mice. (MIRA 15:11)
Vop.med.khim. 8 no.1:17-20 Ja-F '62.

1. Otdel biokhimii TSentral'nogo nauchno-issledovatel'skogo instituta meditsinskoy radiologii Ministerstva zdravookhraneniya SSSR, Leningrad.
(LIVER) (IRON IN THE BODY)
(RADIATION--PHYSIOLOGICAL EFFECT)

VOSKOBOYNIKOV, G.V.

Method of obtaining crystalline ferritin from the organs of small laboratory animals. Trudy Len.khim.-farm.inst. no.13:45-48 '62. (MIRA 15:10)

1. Kafedra biokhimii (zav. prof. S.Ye. Manoylov) Leningradskogo khimiko-farmatsevticheskogo instituta.
(FERRITIN)

VOSKOBOYNIKOV, G.V.

VOSKOBOYNIKOV, G.V.

"Changes in the Catalase Activity of the Blood and in the Erythropoietic Function of the Organs of Erythropoiesis During the Action of Penetrating Radiation." Cand Med Sci, Central Sci-Res Roentgenoradiological Inst, Min Health USSR, Leningrad, 1955. (KL, No 15, Apr 55)

SO: Sum.No. 704,2 Nov 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (16).

VOSKOBOYNIKOV [redacted]

Prophylactic effect of some chemicals on erythropoiesis in animals with radiation sickness. Vop.radiobiol. 2:431-436 '57. (MIRA 12:6)

1. Sotrudnik TSentral'nogo nauchno-issledovatel'skogo rentgeno-radiologicheskogo instituta Ministerstva zdravookhraneniya SSSR.
(RADIATION PROTECTION) (ERYTHROCYTES)

MANOYLOV, S.Ye.; CHAMIN, N.N.; DOBRYNINA, T.I.; VOSKOBOYNIKOV, G.V.

Isolation of crystalline catalase from horse erythrocytes and the study of some of its physicochemical properties. Biokhimiia 26 no.3:408-411 My-Je '61. (MIRA 14:6)

1. Chair of Biochemistry, Chemo-Pharmaceutic Institute, Leningrad.
(CATALASE) (ERYTHROCYTES)

VOSKOBOYNIKOV, G.V.; SHMELEVA, N.I.

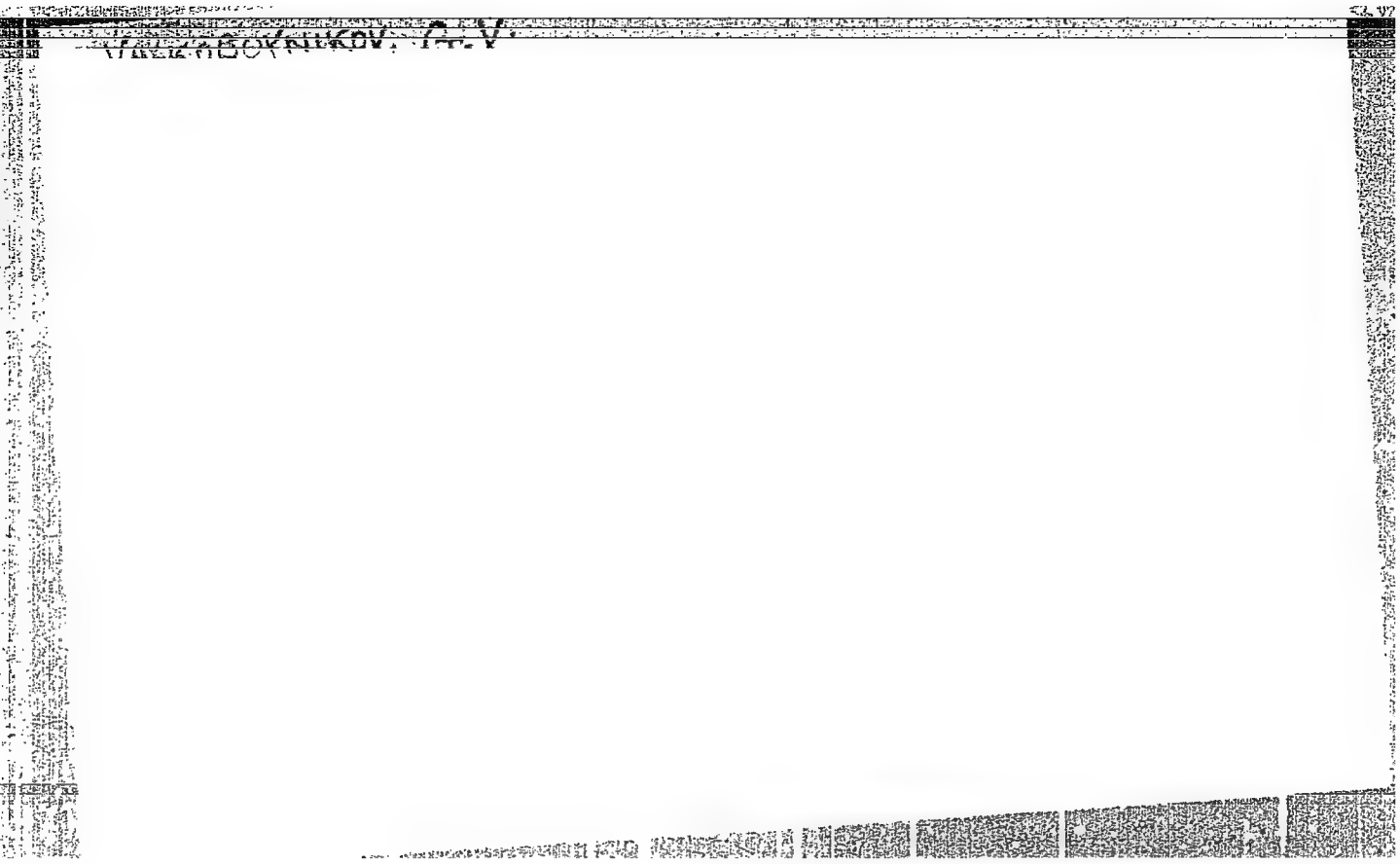
Remote development of anemia following single exposure to X rays. Radiobiologiia 1 no.6:887-891 '61. (MIRA 15:2)

1. TSentral'nyy nauchno-issledovatel'skiy institut meditsinskoy radiologii, Leningrad.
(X RAYS—PHYSIOLOGICAL EFFECT) (ANEMIA)

RAZUVAYEV, G.A.; RYABOV, A.V.; ZHIL'TSOV, S.F.; SOKOLOVA, V.A.; VOSKOBOYNIK, G.A.

Initiating action of organomercury compounds in vinyl polymerization. Vysokom.soed. 4 no.3:371-375 Mr '62. (MIRA 15:3)

1. Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudarstvennom universitete imeni Lobachevskogo.
(Vinyl compound polymers) (Mercury organic compounds)



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1. VOSKOBOINIKOV, I. I.

2. USSR (600)

4. Rostov Province-Bee Culture

7. Wide-scale experimentation in collection farm apiaries of Rostov Province. Pchelovodstvo. 30, No. 4, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

VOSKOBOYNIKOV, G.I.

Efficient choice of a method for the heat treatment of glass. Stek.i ker. 13 no.6:13-15 Je '56. (MLRA 9:8)

1. Proyektno-konstruktorskoye byuro Instituta stekla.
(Glass manufacture)

APIN, A.Ya. (Moskva); VOSKOBOYNIKOV, I.M. (Moskva); KARTASHOV, Yu.A. (Moskva); LYUTOV, V.D. (Moskva)

Calculating the polytropic indices of the explosion products of condensed explosives. PMTF no.5:117-118 S-O '61. (MIRA 14:12)
(Explosions) (Explosives)

VOSKOBOYNIKOV, I.M.; AFANASENKOV, A.N.

Some characteristics of detonating nitroglycerine explosives.
Vzryv. delo no.55/12:93-97 '64. (MIRA 17:10)

1. Institut khimicheskoy fiziki AN SSSR.

VOSKOBOYNIKOV, I.M.; DUBOVIK, A.V.; BOBOLEV, V.K.

Low velocity detonation of nitroglycerin. Dokl. AN SSSR 161 no.5: 1152-1155 Ap '65. (MIRA 18:5)

1. Institut khimicheskoy fiziki AN SSSR. Submitted October 10, 1964.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001861020013-9"

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001861020013-9"

L 21853-66 EWP(m)/EWP(j)/EWA(h)/EWT(l)/EWT(m)/T/EWA(d)/EWA...

ACC NR: AP6011660 SOURCE CODE: UR/0020/66/167/003/0610/0612

AUTHOR: Voskoboynikov, I. M.; Bogomolov, V. M.; Margolin, A. D.; Apin, A. Ya.

ORG: Institute of Chemical Physics, Academy of Sciences SSSR (Institut khimicheskoy fiziki Akademii nauk SSSR)

TITLE: Determination of decomposition times of explosives in a shock wave

SOURCE: AN SSSR. Doklady, v. 167, no. 3, 1966, 610-612

TOPIC TAGS: explosive, explosion, shock wave, kinetics

ABSTRACT: The purpose of this work was the measurement of the decomposition time of liquid nitromethane, liquid tetranitromethane, and monocrystalline hexogen [RDX] under the influence of a flat shock wave, using the experimental arrangement shown in Figure 1:

Card 1/4 UDC: 534.222.2+541.427.6

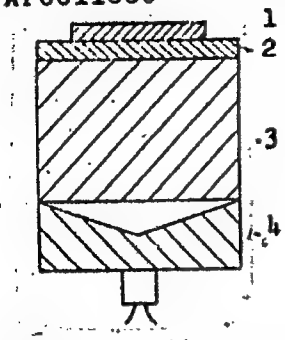

Fig. 1. Experimental arrangement

1 - The explosive investigated; 2 - metallic plate; 3 - active charge; 4 - lens for orthogonalization of the wave front.

The occurrence of the reaction initiated by passage of the shock wave is accompanied by explosion; the flash is registered photographically. When no flash is observed, it is assumed that the reaction time is longer than the time required for passage of the shock wave and return of the rarefaction wave through the layer of the investigated substance. For each wave intensity there exists a layer thickness for which an explosion will still occur. The results of the critical thickness h_{cr} measurements are given in the table:

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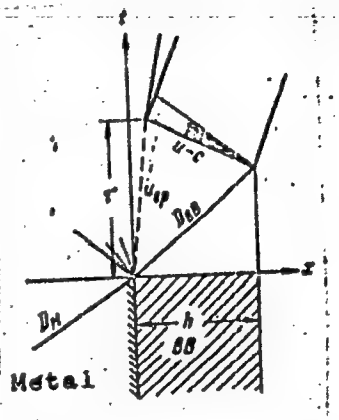
ACC NR: AP6011660

P_0, kbar	H_{cr}, mm	τ, μsec
Monocrystalline hexogen		
170	2,98±0,5	1,00
175	2,38±0,10	0,68
180	1,86±0,10	0,47
190	1,18±0,05	0,33
195	1,1±0,05	0,30
Nitromethane		
86	7±0,5	2,54
90	4±0,5	1,42
93	3±0,5	1,05
99	2±0,5	0,67
104*	0,5±0,25	0,33*
Tetranitromethane		
108	3,5±0,5	1,24
111	1,0±0,25	0,35
116	0,5±0,25	0,20

P = 86 kbar; τ = 2.26 μsec;
P = 89 kbar; τ = 1.74 μsec
for nitromethane.

Fig. 2. Schematic representation



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ACC NR: AP6011660

The decomposition time τ is calculated from

$$\tau = \frac{h_{cr}}{D}\left(\frac{D+c-u}{c}\right),$$

where D is the velocity of the shock wave; c is sonic velocity; and u is the mass flow behind the shock wave (see Fig. 2). Analysis showed that for the given accuracies of h_{cr}, and without increasing the error by more than 5%, it can be assumed that D = c, and

$$\tau = \frac{h_{cr}}{D}\left(2-\frac{u}{D}\right).$$

The decomposition of explosives is undoubtedly influenced by temperature to a greater extent than by pressure, so that future investigations should be directed at this area. Orig. art. has: 2 figures and 1 table. [VS]

SUB CODE: 19/ SUBM DATE: 29Jun65/ ORIG REF: 002/ OTH REF: 002
ATD PRESS: 4227

Card 4/4 net

APIN, A.Ya. (Moskva); VOSKOBOYNIKOV, I.M. (Moskva); SOSNOVA, G.S. (Moskva)

Course of the reaction in a detonation wave of mixed explosives. (MIRA 16:11)
PMTF no.5: 115-117 S-O '63.

ACCESSION NR: AT4002175 S/2996/63/000/052/0195/0201

AUTHOR: Afanasenkov, A. N.; Voskoboynikov, I. M.; Sosnova, G. S.; Parfenov, A. K.

TITLE: Combustion initiation shock wave of nitroglycerine charges and its mixtures

SOURCE: Nauchno-tekhnicheskoye gornoye obshchestvo. Vzry*vnoye delo. Sbornik, no. 52/9, 1963. Promy*shlenny*ye vzry*vchaty*ye veshchestva; detonatsiya, goreniye, deystviye vzry*va v gornoy srede, 195-201

TOPIC TAGS: detonation, shock wave, high-speed combustion, detonation failure, high explosive, combustion initiation, shock wave combustion initiation, nitroglycerine, nitroglycerine charge, ammonite PZhV-20, ammonite PZhV-20 explosive nitroglycerine TNT mixture, nitroglycerine TNT mixture charge

ABSTRACT: Processes other than stable detonation have been observed in explosive charges, e.g. low-speed detonation, combustion inside of massive shells or holes, combustion in thin layers during drop-hammer tests of shock sensitivity, etc. These processes were investigated to help prevent detonation failures. Detonation and combustion procedures were investigated with nitroglycerine charges and with charges of sodatol (trotyl mixed with sodium chloride) across a 2-3 mm thick plexiglas wall. It was found that a detonation rate of 7650 m/sec occurred in passive nitroglycerine charges and that

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ACCESSION NR: AT4002175

the sodatol-active charge detonated at rates greater than 2500 m/sec. It was concluded that combustion velocities obtained with nitroglycerine and its mixtures with ammonium nitrate are equal, and therefore, that decomposition of nitroglycerine plays a decisive role in the combustion process. Detonation failure of safety explosive charges in holes was also studied. It was concluded that detonation failures in safety explosives are more probably between cartridges than in one continuous charge and that at charge densities of 1.5 g/cc and over, detonation transmission from cartridge to cartridge is improbable. Further, the burning out of charges of safety explosives can be attributed to the initiation of combustion by shock waves by the transmission of detonation from cartridge to cartridge. The authors suggested that any sensitizer for safety explosives should be investigated for a tendency to burn out under the effect of shock waves. Orig. art. has: 6 figures

ASSOCIATION: IKHF AN SSSR

SUBMITTED: 00 DATE ACQ: 10Dec63 ENCL: 00

SUB CODE: WA NO REF SOV: 002 OTHER: 001

Card 2/2

S/020/63/149/003/028/028
B192/B102

AUTHORS: Sosnova, L. S., Voskoboynikov, I. M., Dubovik, A. V.

TITLE: The luminescence of the front of a low-rate detonation in nitroglycerin

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 149, no. 3, 1963, 642-643

TEXT: The course of detonations of the rate D=2.01±0.1 km/sec in cylindrical nitroglycerin charges of 15 - 40 mm diameter were observed photographically. After ignition of the nitroglycerin a luminescence becomes visible at the detonation front in a tube of plexiglas, which emits light waves and emitted towards the wall of the tube. The luminescence is most intensive in the layers near the wall. At the center of the charge the flow in these layers overtakes the front, thereby forming a detonation front concave in relation to the direction of propagation. Experiments with tubes of materials having different elastic and acoustic properties show a damping of the detonation if the sonic velocity in the material is smaller than 2.0 km/sec (paraffin, cork, lead). If plexiglas tubes are replaced by thick-walled steel tubes the reaction process is accelerated and the dark channel disappears. Also the thickness of the

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tube is important for the continuous course of the detonation. For plexiglas of 0.1 mm thickness detonations of 2 km/sec cannot propagate themselves, while for thicknesses larger than 2 mm a continuous course of the detonation is possible. There are 3 figures.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR
(Institute of Chemical Physics of the Academy of Sciences USSR)

PRESENTED: August 3, 1962, by V. N. Kondrat'yev, Academician

SUBMITTED: July 30, 1962

SOSNOVA, G.S.; VOSKOBOYNIKOV, I.M.; BRUSNIKINA, V.M.; NOVIKOV, S.S.; APIN, A.Ya.; LAPSHINA, Z. Ya.

Comparative data on the physicochemical properties of some liquid explosives. Izv. AN SSSR Otd.khim.nauk no.2:351-352 F '62. (MIRA 15:2)

1. Institut khimicheskoy fiziki AN SSSR i Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Explosives)

38568
S/081/62/000/010/069/085
B168/B160

11.8700

AUTHORS: Voskoboynikov, I. M., Sosnova, G. S.

TITLE: Detonation of explosive compositions

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 10, 1962, 501, abstract 10L439 (Zh. prikl. mekhan. i tekhn. fiz., no. 4, 1961, 133 - 135)

TEXT: The rate of detonation and the temperature at the front of the blast wave were measured for liquid and solid explosive compositions. The data were compared with results of calculations based on the assumption that the composition of the explosion products is the same in the blast wave from composite explosives as in that from a simple one with the same elementary composition as the mixture. In the case of liquid explosive mixtures (tetranitromethane with hexane, nitromethane, nitrobenzene, or dinitrotoluene; nitroglycerin with methyl alcohol or nitromethane) a large measure of agreement was found between the calculated and experimental values, which indicates that the hypothesis is correct. A comparison of the experimental detonation speeds in the case of heterogeneous explosive compositions (suspension of carbon black and trotyl in tetranitromethane,

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Detonation of explosive compositions

trotyl/hexogen 50/50, pentolite 50/50, ammatol 50/50) with calculated results shows that each of the explosive components of the mixture has time to decompose in the blast wave, although in most mixtures the decomposition products of the individual components do not react among themselves. Greater dispersion of the components of the mixture favors reaction between the decomposition products. [Abstracter's note: Complete translation.]

Card 2/2

31254

S/207/61/000/005/014/015
D237/D303

11.8700 also 3108, 3008

AUTHORS: Apin, A.Ya., Voskoboynikov, I.M., Kartashiv, Yu.A., and Lyutov, V.D. (Moscow)

TITLE: Determining polytropic indices of products of the explosion of condensed explosives

PERIODICAL: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 5, 1961, 117 - 118

TEXT: Adiabatic of the explosion products in the front of blast wave can be described by

$$p = A\gamma^{-n}, \qquad (1)$$

where n depends on the composition of products, their pressure and temperature. Using the data of A.N. Dremin and P.F. Pokhil (Ref. 1: DAN SSSR, 1959, v. 128, no. 5), A.Ya. Apin and I.M. Voskoboynikov (Ref. 2: PMTF, 1960, no. 4) and A.N. Dremin and G.A. Adadadurov in (Ref. 3: Izv. AN SSSR, OKHN, 1960, no. 6) the authors show that in a wide interval of temperature and pressure, polytropic index of

Card 1/2

Determining polytropic indices ...

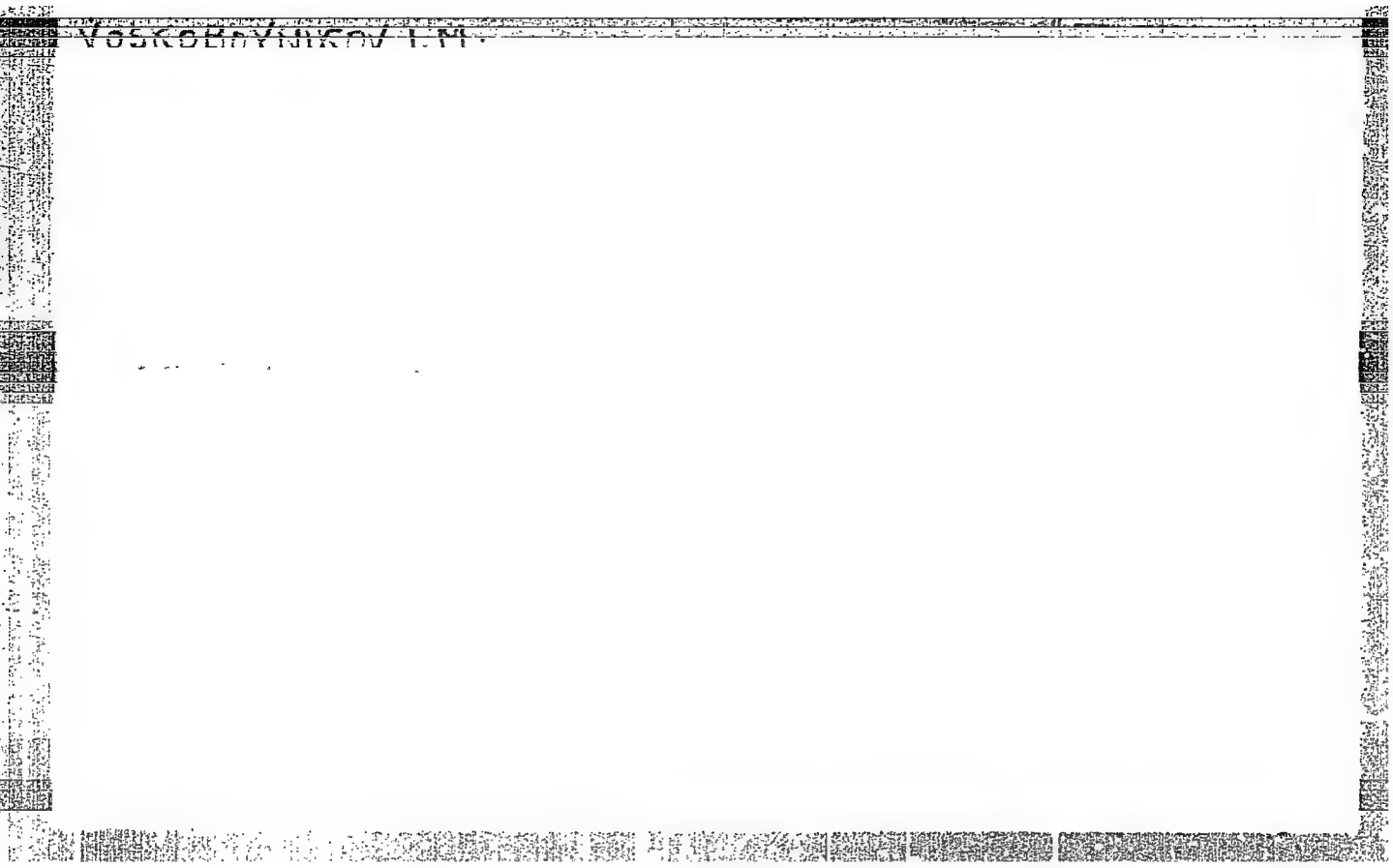
explosion products can be represented as a sum of polytropic indices of components of the products of explosion, i.e.

$$n^{-1} = \sum \beta_i n_i^{-1} \qquad (3)$$

where β_i - molar fraction of the component. There are 1 figure and 4 Soviet-bloc references.

SUBMITTED: June 15, 1961

Card 2/2



Voskoboynikov, L.M.

report to be presented at the 1st Intl Congress of the Intl Federation of Automatic Control, 25 Jun-5 Jul 1960, Moscow, USSR.

BYKHOVETSKIY, M. L. - "Ultra stability in electronic calculating devices in the solution of nonlinear equations in indefinite form"
CHELYUSTKIN, A. B. - "Use of calculating devices in systems for the automatic control of rolling mills"
CHICHINADZE, V. K. - "Concerning some problems of the organization of self-adjusting and self-teaching systems of automatic control, based on principles of random search"
DAVYDOV, E. I. - "Development of automatic control systems for boiler units"
DUDNIKOV, Ye. G. - "Determination of optimum adjustments of industrial automatic regulation systems according to initial data obtained from experience"
DUB'YE, A. I., and KOZENVASSER, E. E. - "Methods of organizing Lyapunov functions in the theory of nonlinear regulating systems"
DRUZHININ, N. N. - "Balanced regulation and inter-communications of a multi-motor electric drive and technology in continuous rolling mills"
FEL'DBAUM, A. A. - "Problems of statistical theory of automatic optimization systems"
FETGIN, V. I. - "Automation of a reversible cold rolling mill for nonferrous metals"
FILIPPOV, A. F. - "Application of the theory of differential equations with a discontinuous right side to nonlinear problems of automatic regulation"
GAVRILOV, M.A. - "Structural surplus and operational reliability of relay devices"
GANKIN, M. Z. - "Automation of irrigation systems"
GRENKRENKO, G. R., KASHTELYAN, V. E., KOSTENKO, M. P., NEYMAN, L. R., and SIDNY, N. N. - "Power regulation of disturbance and problems of the stability of electric power systems"
GINZBURG, S. A. - "Logical method of synthesis of functional converters"
IL'IN, V. A. - "Methods of transmission of information and the structure of telemechanical systems for dispersed structures"
INOSOV, V. L., and LUTSKIY (sic) - "The code-impulse system of telemeasurement for dispatched operations of trunk-line gas pipe lines"
IVAKHNENKO, A.G. - "Concerning the application of the theory of combined regulation systems for cybernetic adaptation systems"
KARANDEYEV, K. B., and SHTAMBERGER, G. A. - "A quasi-equilibrated bridge as an element in a system of automatic control"
KAZAKEVICH, V. V. - "Concerning the process of extra regulation of inert objects in the presence of disturbance"
KAZAKOV, I. E. - "Some problems of the theory of statistical linearization and its application"
KILIN, F. M. - "Some problems of the theory of impulse systems with time selectors"
KOBRINSKIY, A. E., BOLKHOVITIN, S. V., [illegible], IOFFE, D. M., POLYAN, E. P., POPOV, B. P., SLAVUTSKIY, Ya. L., SYSIN, A. Ya., and YAKOBSON, Ya. S. - "The problem of bioelectric control"
KOLOMIYETS, B.T. - "New types of photo resistances and their field of use"
KOPOMKO, M.L., KOKOTUSOV, B. G., and SHMELOV, L. A. - "System of automatic control and regulation of blast distribution in the tuyeres of blast furnace"
KOROBOCHKIN, B. L. - "Investigation of the dynamics of the hydraulic duct of a copying lathe"
KRASOVSKIY, A. A. - "Dynamics of continuous systems of automatic regulation with extra self-adjustment of corrective devices"
KRASOVSKIY, N. N. - "Concerning the selection of parameters of optimum stability systems"
KUKHTENKO, A. I. - "The dynamics of devices imitating living organisms"
KULEBAKIN, V. S. - "The invariant theory of automatic regulation and control systems"
LANIN, I. D. - "Pneumatic calculating devices as a means of insuring the reliability of complex automation systems"
LAZAREV, V. K., and PARKHOMENKO, P.P. - "Mechanization of processes of analysis and synthesis of the structure of relay devices"

VOSKOBOYNIKOV, I.M. (Moskva); SOSNOVA, G.S. (Moskva)

Detonation of mixtures of explosives. PMTF no.4:133-135 Jl-Ag '61. (MIRA 14:10)

(Detonation)

APIN, A.Ya. (Moskva); VOSKOBOYNIKOV, I.M. (Moskva)

Calculating the parameters of the detonation wave for condensed explosives. PMTF no.4:54-55 N-D '60. (MIRA 14:7)
(Shock waves)
(Explosives)

33595

S/207/61/000/004/006/012
E032/E514

11.1260 2406
11.2120

AUTHORS: Voskoboynikov, I.M. and Sosnova, G.S. (Moscow)

TITLE: Detonation of mixtures of explosive materials

PERIODICAL: Akademii nauk SSSR. Siberskoye otdeleniye. Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki. no.4, 1961, 133-135

TEXT: This is a continuation of work reported by the first of the present authors and A. Ya. Apin (Ref.1: PMTF, 1960, No.4; Ref.2: DAN SSSR, 1960, v.130, No.4). In the present paper the authors report experimental results obtained in a study of the effect of the chemical structure and the physical state of the components in explosive mixtures on the explosion products within the detonation wave front. Measurements were made of the detonation velocity and the temperature of the detonation wave front and these were compared with theoretical calculations. The velocity was measured by an ionization method and the temperature by an electron-optical method. The apparatus employed is illustrated in Fig.1. Table 1 gives the detonation-wave parameters for liquid explosive solutions and Table 2 gives these

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Detonation of mixtures of ... S/207/61/000/004/006/012
E032/E514

parameters for heterogeneous mixtures. In these tables ρ_o is the density in g/cm^3 of the explosive mixture, D_1 is the detonation velocity in km/sec and T_1 is the temperature of the wave front in °K

Table 1

Explosive	ρ_o, g/cm^3	D_1, km/sec	T_1, °K
50% CH_3NO_2 + 50% $C(NO_2)_4$	1.34	7.15	4650
65% CH_3NO_2 + 35% $C(NO_2)_4$	1.29	7.30	4600
81% CH_3NO_2 + 19% $C(NO_2)_4$	1.21	6.80	
10% C_6H_{14} + 90% $C(NO_2)_4$	1.43	6.90	4400
14% C_6H_{14} + 86% $C(NO_2)_4$	1.40	7.40	4900
18% C_6H_{14} + 82% $C(NO_2)_4$	1.38	7.00	3900
24% $C_6H_5NO_2$ + 76% $C(NO_2)_4$	1.52	7.90	5000
32% $C_6H_5NO_2$ + 68% $C(NO_2)_4$	1.48	7.50	
45% $C_6H_5NO_2$ + 55% $C(NO_2)_4$	1.42	6.80	
15% $C_7H_5NO_2$ + 85% $C(NO_2)_4$	1.61	7.05	3900
10% CH_3OH + 90% $C_3H_5N_3O_9$	1.48	7.25	
29% CH_3NO_2 + 71% $C_3H_5N_3O_9$	1.48	7.30	4300

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Table 2

Explosive	ρ_o, g/cm^3	D_1, kg/sec
20% $C_7H_5N_3O_6$ + 80% $C(NO_2)_4$	1.64	6.80
10% C + 90% $C(NO_2)_4$	1.64	6.30
15% C + 85% $C(NO_2)_4$	1.64	6.30
50% $C_3H_5N_3O_6$ + 50% $C_7H_5N_3O_6$	1.68	7.65
50% $C_5H_8N_4O_{12}$ + 50% $C_7H_5N_3O_6$	1.65	7.45
50% $C_7H_5N_3O_6$ + 50% NH_4NO_3	1.50	6.30
58% $C_3H_6N_3O_6$ + 42% NH_4NO_3	1.73	8.00

Acknowledgments are expressed to V. S. Smelov for assistance in the experiments. There are 1 figure, 2 tables and 2 Soviet-bloc references.

SUBMITTED: June 10, 1961

Card 3/4
3

33983
S/062/62/000/002/008/013
B117/B138

11.1265
11.1260

AUTHORS: Sosnova, G. S., Voskoboynikov, I. M., Brusnikina, V. M., Lapshina, Z. Ya., Novikov, S. S., and Apin, A. Ya.

TITLE: Comparative data on the physical and chemical properties of some liquid explosives

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye khimicheskikh nauk, no. 2, 1962, 351-352

TEXT: The characteristics of some liquid explosives were compared with the aim of finding out what effect the chemical structure has upon them: The following data were compared:

Explosive	g/cm^2	D,m/sec	T,°K	Q_{expl}, cal/g	Q_{form} kcal/M
butynediol-1,4-dinitrate	1.42	7100	4000	1290	-6.4
butanediol-1,4-dinitrate	1.31	6600	3050	1210	65.5
1,1-dinitro ethane	1.36	7300	3800	1190	25.8
dinitroxy ethyl nitroamine (DINA liquid melt)	1.48	7400	3450	1180	53.6

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Comparative data on the...

The detonation velocity D was determined optically and by an ionization method with an accuracy of ± 100 m/sec. The detonation temperature (T, °K) was measured by the electron-optical chromatographic method (error of measurement ± 150°K). Homogeneous liquid explosives were used in order to eliminate the influence of grain size and porosity of the charge. The formation heats Q_{form} indicated above were calculated from the binding energy and atomization heat (Ref. 3: Ya. K. Syrkin and M. Ye. Dyatkina, Khimicheskaya svyaz' i stroyeniye molekul (Chemical binding and structure of molecules), Goskhimizdat, M.-L., 1946; Ref. 4: F. A. Baum, K. P. Stanyukovich, and B. I. Shekhter, Fizika vzryva (Physics of explosion), Fizmatizdat, M., 1959). The explosion heat Q_{expl} was calculated on the assumption that the disintegration from explosion is governed by the Brinkley-Wilson rules, i.e., that the hydrogen in the detonation wave is always completely oxidized to water, and that CO_2 is formed only after the carbon has completely oxidized to CO. The composition of the explosion products was found not to depend on the chemical structure of the substance but on the elemental composition of the molecules (C, H, N, O). There are 1 table and 5 references:

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B117/B138

Comparative data on the...

3 Soviet-bloc and 2 non-Soviet-bloc.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics of the Academy of Sciences USSR). Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences USSR)

SUBMITTED: January 31, 1961

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SOSNOVA, G.S.; VOSKOBOYNIKOV, I.M.; DUBOVIK, A.V.

Glow of the low-velocity detonation front in nitroglycerin.
Dokl.AN SSSR 149 no.3:642-643 Mr '63. (MIRA 16:4)

1. Institut khimicheskoy fiziki AN SSSR. Predstavleno akademikom V.N.Kondrat'yevym.

(Nitroglycerin) (Detonation)

PADIVENKO, I.K., inzh., VOSKOYNIKOV, M.A., inzh.

Machinery and automatic devices designed by a group of factroy workers. Stroi.mat. 5 no.7:26-30 Jl '59. (MIRA 12:10)
(Irpen'-- Brick industry--Equipment and supplies)

AUTHORS: Voskoboynikov, N. I., Kubantsev, A. P., Prokhorov, V. A. 76-32-2-33/38

TITLE: A Calorimetric Apparatus for the Measurement of Heat Processes of Duration
(Kalorimetricheskaya ustanovka dlya izmereniya dlitel'nykh teplovykh protsessov)

PERIODICAL: Zhurnal Fizicheskoy Khimii, 1958, Vol. 32, Nr 2, pp. 460-464 (USSR).

ABSTRACT: A calorimetric apparatus is described. It serves for the measurement of the heat effects of chemical and physical-chemical long-duration processes. It consists of a thermostat TC-24 in a differential calorimeter and the electronic circuit connected with it. The thermostat in which the calorimeter is placed makes it possible to select the temperature for the experiment within the limits of from 25° to 150°C and to maintain this temperature with a constant accuracy of ± 0,1°C. The calorimetric sensitivity of the apparatus $\delta q = 2{,}8 \cdot 10^{-4}$ cal/hour. In order to check the measurement accuracy an electric calibration of the apparatus was carried out. The deviation in the measurement of the total value of the heat emitted

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A Calorimetric Apparatus for the Measurement of Heat Processes of Duration 76-32-2-33/38

was 0,05%. In order to illustrate the operation of the apparatus a measurement of the heat emission of the radioactive isotopes P^{32} and Sb^{122} was carried out. The difference in heat emission between the calculated values and those obtained by the authors was 1,7 cal/hour curie. This value corresponds to the γ radiation energy not retained in the calorimeter.
There are 3 figures, 2 tables, and 4 references, 2 of which are Soviet.

SUBMITTED: October 18, 1957.

1. Calorimeters--Design 2. Calorimeters--Performance
3. Calorimeters--Test results

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VOSKOBOYNIKOV, M.I.; KURANTSEV, A.P.; PROKHOROV, V.A. (Moskva)

Calorimetric arrangement for measuring heat processes of prolonged duration [with summary in English]. Zhur.fiz. khim. 32 no.2:460-464 F '58. (MIRA 11:4)
(Calorimetry)

VOSKOBOYNIKOV, M.M., mladshiy nauchnyy sotrudnik

Transfusion of chloride plasma in the combined therapy of burns. Ortop.travm.i protez. 20 no.9:61-65 S '59. (MIRA 13:2)

1. Iz otdela konservirovaniya krovi (rukovoditel' - prof. V.N. Krainskaya-Ignatova) Ukrainskogo nauchno-issledovatel'skogo instituta perelivaniya krovi i neotloshnoy khirurgii (direktor - kand. med.nauk Yu.M. Orlenko) i kafedry fak. i gospit. khirurgii (zaveduyushchiy - prof. K.I. Pikin) sanitarno-gigiyenicheskogo i pediatricheskogo fakul'tetov Khar'kovskogo meditsinskogo instituta.
(PLASMA SUBSTITUTES ther.)
(BURNS, ther.)

ACCESSION NR: AR4015684 S/0081/63/000/023/0129/0129

SOURCE: RZh. Khimiya, Abs. 23G68

AUTHOR: Suvorovskaya, N. A.; Voskresenskaya, M. M.

TITLE: Determination of lithium in products containing both lithium and beryllium

CITED SOURCE: Nauchn. soobshch. In-t gorn. dela im. A. A. Skochinskogo, v. 16, 1962, 23-25

TOPIC TAGS: lithium, lithium determination, quantitative analysis, beryllium, colorimetry, berillon ZIRYe A, toron

TRANSLATION: A method is described for the determination of Li and Be in Li-Be ores, consisting of the separation of Be as beryllium hydroxide, followed by the colorimetric determination of Be and Li using berillon ZIRYe A for beryllium and toron for lithium. A 0.2 g sample is heated for 30-40 minutes at 900-1000C; after cooling and treatment with a mixture of 10 ml HF + 5 drops H_2SO_4 + 3 drops HNO_3, the mixture is evaporated, mixed with water and again evaporated to dryness. The residue is heated for 1-2 minutes to a

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VOSKOBOYNIKOV, M.Ye.: SATPAYEV, K.I., akademik.

Cretaceous deposits of the western Aral region. Dokl.AN SSSR 90 no.5: 851-854 Je '53. (MLRA 6:5)

1. Institut geologicheskikh nauk Akademii nauk Kazakhskoy SSR (for Voskoboynikov). 2. Akademiya nauk SSSR (for Satpayev).
(Aral Sea Region--Geology, Stratigraphic)

VOSKOBOYNIKOV, M. YE.

VOSKOBOYNIKOV, M. YE. -- "The Geological Structure of the Southeastern Part of the Aral-Kazalinsk Depression." Acad Sci Kazakh SSR, Institute of Geological Sciences, Alma-Ata, 1956. (Dissertation for the Degree of Candidate of Geologicomineral Sciences)

SO: Knizhnaya Letopis' No 43, October 1956, Moscow

VOSKOBOYNIKOV, M. YE.

USSR/Cosmochemistry - Geochemistry. Hydrochemistry, D

Abst Journal: Referat Zhur - Khimiya, No 1, 1957, 732

Author: Voskoboynikov, M. Ye.

Institution: Academy of Sciences Kazakh SSR

Title: Deposit of Gypsum Clay in Kzyl-Ordin Oblast

Original Periodical: Vestn. AN Kaz. SSR, 1956, No 5, 62-67

Abstract: The chemical composition and technological characteristics of gypsum clay (GC) from neogenic deposits in the Tuzbulak brachyanticline have been determined; thermograms of the mineral have also been recorded. The $CaSO_4 \cdot 2H_2O$ content of the ore varied between 59.0 and 91.7%. A stratigraphic section, profile, and map of the deposit are given, together with a table showing the results of three complete chemical analyses on the powdered and needle-like fibrous varieties of GC. The author agrees with V. G. Sagunov (Referat Zhur - Khimiya, 1956, 64755) in that the GC was formed by the crystallization of Ca sulfate and carbonate during the evaporation of ground water under arid climatic

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